

SUMMARY OF QUALIFICATIONS

RF Engineer with **20+** years of experience in the field of RF Planning, Design & Optimization of LTE, 5G NR, WiMax, CDMA-1X, GSM, GPRS & UMTS networks, Good Hands-on exposure on RF planning, Model Tuning using CW drive test data, Network Dimensioning, Network benchmarking, PN / Frequency Planning, Traffic trend analysis and traffic engineering, Interference analysis, Network Optimization, Field trials, Microwave link Engineering, In building design & Software programming, Expert knowledge in Atoll, Planet EV, Wizard, EDX & Netplan tools for RF planning, Nitro, Invex3G and TEMS for data collection, Actix for post processing & Proficient with MapInfo.

PROFESSIONAL EXPERIENCE

Telnet Inc.,

Jan 2009 to Present

Client - AT&T (BaWa Baltimore Washington)

Jan 2013 to Present

Sr. RF Engineer – New Site Build Design

- RF Design Engineering for AT&T WABA (Washington Baltimore) Market
- End to End New Site Build RF Design – Release of search rings, Site / Candidate Selection, Site Visit for design feasibility, Construction drawings review, Zoning, Release of RFDS and close outs of projects.
- Creating Radio Frequency (RF) Propagation studies and simulations using ATOLL planning tools for 5G, LTE and UMTS.
- Radio Network design for launch of Firstnet and cRAN (centralized RAN / Small Cells)
- LTE and UMTS Additional Carrier Launches
- Site Visits for Evaluation of NSB Candidates
- Zoning Meetings/ Hearings
- Capacity Analysis for Network Expansion, Design for Special Events – Inauguration/ Games/ Festivals using Sector Split/ Multi Beam Antennas
- Interaction/ Meetings with Turf Vendors to provide guidance/ project management to ensure timely completion of tasks
- Create Technical Approval packages, supported by Design and Optimization KPI
- Design for Special Events – Inauguration/ Games/ Festivals using Sector Split/ Multi Beam Antennas
- Construction drawings verification regarding aspects influencing RF performance (rad center, shadowing, antenna choices and isolation, TMA/RRH, etc.)
- Involved in FCC Spectrum extension agreements with other parties (Verizon, T-Mobile, US Cell etc.)

Client 2 Clearwire, Seattle WA / Salt Lake City, UT

Jan 2009 to Jan 2013

Sr. RF Consultant, WiMax Design and Performance

WiMax Design and Performance, Clearwire, Seattle WA

- Lead RF Engineer for 800+ Substantial Services Sites across US
- Performance Monitoring, Capacity Analysis for nationwide WiMax Sites across Multiple Vendors Huawei, Samsung & Motorola

- Perform Routine Audits to ensure regulatory compliances as well as meeting Golden Parameters
- Perform PFD Analysis to ensure NO INTERFERENCE and meeting treaty requirements on cross Border Sites with Canada and Mexico
- Support local market engineers in resolving interference and spectrum management related issues
- End to End Engineering Activities to support Augments, Retunes & Design for Substantial Services Sites
- Alarm and Outage Tracking and Coordination with NOC to resolve Issues within SLA

WiMax Design and Performance, Ericsson Manager Services, Clearwire, Seattle, WA/Salt Lake City, UT

- Was a Market RF Lead for ~100 4G WiMax sites in Boise, ID including planning, post launch optimization, capacity management, frequency planning & parameter assignment
- Performed all stages of network design including new coverage sites, new capacity sites and network overlay design
- Worked closely with all functional groups to reduce operation cost and produce fastest result
- Performed quarterly capacity growth analysis & made recommendations on carrier augments and capacity sites
- Prepared monthly coverage plots and population counts for the responsible area using Planet EV
- Analyzed customer complaints and made necessary network changes to improve customer experience
- RF design and Optimization activities for Eastern Washington and Northern California Markets to support Expedience and WiMax conversion
- End to End RF design- search ring process, optimal site selection, link budget analysis, interference mitigation, and spectrum management
- Performance Monitoring, KPI Trends analysis for Expedience Networks
- RF Support for conversion of existing Expedience Networks to WiMax, Live Support to Operations team during conversion of Expedience sites to WiMax. Troubleshooting problematic sites for Hardware issues resulting in High Noise / Bad Performance

Brosna Communications

AT&T, Dallas, TX

May 2008 to Jan 2009

Sr. RF Engineer- UMTS Design & Optimization 3G

- Worked at Ericsson National Team to support nationwide launch of AT&T UMTS markets
- Successfully Launched the UMTS 2nd Carrier for Dallas & Los Angeles markets.
- Managed the technical aspects of UMTS launch, client expectations and project deliverables
- Performed cluster optimization by analyzing cluster data using Actix Analyzer and Actix Spotlight.
- Performed IRAT and IFHO optimization.
- Obtained the required launch KPIs as specified by AT&T.
- Performed Optimization of UMTS network of AT&T nationwide before commercial launch. (Catering RF requirements for Pre and Post Launch)
- Detailed Investigation and analysis of each cluster for Call Drops, Handoff & Access Failures, Pilot Pollution etc
- Performed RF Design validation for Rollout of UMTS network in AT&T nationwide markets
- Conducted 2nd Carrier Design (850 and 1900) networks based on Ericsson UMTS technology using Forsk Atoll RF Propagation Modeling tool

- Tuned propagation models based on the data collected using CW test for all defined morphologies in the UMTS polygon, fine tune the models to meet the set standard deviation criteria for every morphology
- Created a base design and run simulations using Atoll for Voice, R99 and HSDPA services
- Performed Optimization of UMTS network using ACP tool Aeirso.
- Prepared and Optimized the Neighbor list.
- Generated and optimized the scrambling code plan.

TTS INC

XOHM Sprint, Herndon, VA

Jan 2008 to May 2008

Sr. RF Engineer, WiMax 4G

- Involved with In-building Penetration Loss study for 2.5 GHz
- Performed RF Propagation testing to determine losses associated with various morphologies & building construction material to tune RF propagation models used by Sprint for nationwide WiMax deployment
- Conducted Statistical Analysis on Collected CW data for inside and outside a building premises to derive In-building penetration Loss values for different area reliabilities
- Performed Post processing and Correlation of data using Forecaster software
- Supported local drive test teams in Dallas, New York and Baltimore Washington for collection of walk test data

LCC

RF Engineer

June 2007 to Jan 2008

Design Engineer- WiMax 4G, Clearwire, Louisville, KY

- Involved with RF Design for WiMax rollout in Louisville Market
- Released of Search rings based on coverage and capacity requirements
- Conducted Preparation of Coverage Prediction Plots and Analysis using RF Planning tool EDX.
- Analyzed for Covered and Uncovered Households using EDX and MapInfo utilities
- Performed Automatic Frequency planning and C/I analysis using EDX
- Conducted RF Risk Analysis for Planned sites
- Evaluated candidates for Acquisition of BTS Sites
- Coordinated with Site Acquisition team
- Supported for Zoning related activities

WFI

Dec 2006 to Jun 2007

Design Engineer- WiMax 4G, Sprint, BAWA

- Performed CW drive testing for Model Tuning (2.5 GHz) of sites in BAWA
- Provided technical guidance to junior engineer on CW testing
- Provided training on CelSignal & Berkley CW testing tools
- Prepared MOP for CW testing and methodology
- Conducted Benchmarking Data collection software's for CW Testing (Berkley and Celplan)
- Configured and Tested different receivers for CW Testing (Carried detailed analysis on Rhodes & Schwarz spectrum analyzers FSH3, FSH6, FS300 & FS315)

- Supported Samsung in Radio Network design for Sprint's WiMax network rollout in BAWA market

Bharti Airtel Ltd, (Ericsson GSM 1800) Delhi, INDIA
Manager – Network Quality

Mar 2006 to Nov 2006

- Was responsible for the overall network quality of Airtel's U.P west GSM 1800 Network
- Performed KPI Performance Monitoring and Improvement Planning
- Performed RF Design Validation
- Assessed the requirement of Capacity upgrade of BTS Sites based on traffic trends
- Conducted AOP Planning and Review with vendor and top management
- Managed Network Services and Managed Capacity Services sign-off between Bharti and Ericsson
- Led a team of RF engineers working for design and optimization of GSM 1800 network.

Reliance Infocomm Ltd, Mumbai, INDIA
Senior RF Engineer

Jun 2004 to Mar 2006

- Involved with LUCENT CDMA 2000 1X RTT System
- Performed RF Planning, Optimization and Performance Management for Reliance network
- Supported in Radio Network Planning of New sites and Repeaters for improvement of Coverage & Quality.
- Conducted Carrier growth and new capacity site planning to cater for future growth. Use of capacity enhancement features for Delhi Region.
- Performed Access, Paging and other signaling capacity planning and optimization including paging strategy modifications with integration of new MSCs in Delhi & NCR region.
- Involved with Rehoming Plans and implementation for integration of new MSCs in Delhi & NCR Region.
- Performed Optimization of Radio Network of North region for Data service quality improvement and use of Data related features.
- Conducted Vendor Evaluations – Responsible for evaluation of technical specs of various RF planning and optimization tools like Schema Optiplanner, EDX, Agilent's Nitro, Actix etc
- Planned Cost-effective solutions for Phase 2 rural towns and highways for Northern Region.
- Integrated Repeaters in existing network and optimization of Repeater settings to maximize coverage from repeaters while maintaining performance of existing network in Delhi & NCR Region.
- Performed Field trial of Optical Repeater and FSRs to study effect on coverage and performance of these solutions followed by commercial deployments.

TATA Teleservices Ltd., Delhi, INDIA
Senior RF Engineer

Jul 2003 to May 2004

- Involved with Lucent CDMA 2000 System
- Performed RF Design and Optimization of CDMA Network in Delhi, Job profile includes optimization of existing network, Design and planning for Network expansion, Providing In building Coverage solutions.
- Had hands on exposure on RF Planning tool Wizard, Drive Test Kit Nitro and Post processing tool ACTIX.

- Conducted Radio Network designing (Link Budget analysis, coverage plots and capacity simulations) based on marketing inputs for major cities of NCR along with Motorola RF Team using RF planning tool Netplan
- Performed performance monitoring of existing network by analyzing the RF performance reports on daily basis and design and optimization based on traffic trend and forecast.
- Tracked and identified sources of external interference that degrades the performance of network by carrying spectrum analysis using Agilent's Spectrum Analyzer drive test kit.
- Involved in the planning of process for swapping entire Delhi network from Lucent system to Motorola, catered for the requirements from RF front.

Reliance Communications Ltd., Delhi, INDIA
RF Engineer

Mar 2001 to Jul 2003

- Involved with Lucent CDMA 2000 1X System
- Performed Radio Network Planning for all major cities of North India (Delhi / NCR, Punjab & Haryana) for Reliance 's CDMA – WLL project.
- Designed Radio Network (Identifying location of BTS sites based on Demand Grids, generating search radius) Link Budget Calculations, for all major cities using AGILENT'S RF Planning Tool – WIZARD.
- Conducted Optimization of Network on RF Planning tool by doing simulation analysis for Forward and Reverse link.
- Performed Extensive Field survey of cities for Acquisition of BTS sites, CW Testing, recommending suitability of site based on clutter and suggesting antenna heights and azimuths.
- Conducted PN and Neighbor list Planning for Reliance CDMA network of Delhi and NCR
- Optimized Reliance CDMA network by analyzing the drive test data using Post Processing Optimization tool "ACTIX" by suggesting suitable changes in neighbor list, making necessary changes in the system parameters and recommending physical changes in the azimuths and tilts of the antennas.
- Provided In building coverage solutions using RF and Optical Repeaters, scope involves survey of the building, making proposed In Building solution plan, installation of Antennas and Repeaters within the building and carrying In Building Drive test using Agilent's Indoor drive Test kit.
- Handled all RF related customer complaints by checking / inspecting serving BTS site (Involves Hardware as well as Software diagnosis) suggesting additional sites, if any. Carrying optimization of the network to minimize coverage holes.

MTNL Delhi, INDIA
Trainee Engineer

Jun 2000 to Mar 2001

- Performed Installation, Testing & Commissioning of DLC (Digital Loop Concentrator)
- Worked on ALCATEL's - DLC and did the software configuration using ALCATELS software NECTAS & TELIX.
- Was a member of the team, which installed more than 50 DLC's all over Delhi.

EDUCATION

- Bachelor of Engineering, Computer Science & Engineering, Marathwada University, India

TRAINING

- 15 Days Training on RF Planning Tool – WIZARD, conducted by AGILENT Technologies at Mumbai.
- One-week training on CDMA 2000 (1-X) conducted by QUALCOMM at Mumbai.
- One-week training on RF Optimization CDMA 1X – 3G Network conducted by Lucent Technologies at Mumbai
- Three days training on “Fundamentals of CDMA 1X” conducted by Lucent technologies at Mumbai
- One-week training on “RF Drive Test and CDMA technology” conducted by Agilent technologies at Mumbai
- Three days training on “RF Optimization Post Processing Tool” conducted by ACTIX
- Four days training on “RF Planning” conducted by Motorola at Ahmadabad.
- Five days training on “RF Performance optimization” conducted by Lucent at Mumbai.
- Two weeks training on “UMTS Design using Atoll” at Dallas, TX conducted by Ericsson
- Two days training on “Overview of WiMax” conducted by WFI at Washington D.C

SKILLS

- RF Planning Tools - Planet EV, Agilent Wizard, EDX, Forsk Atoll, Netplan
- ACTIX Analyzer, Spotlight & LDAT (Post Processing Tools)
- Windcatcher / Nitro / TEMS/ CAIT/ Invex 3G (Drive Test Tools)
- Aeirso ACP Tool
- MapInfo / MCOM
- MS Office – Word/Excel/Access/Visio